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P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

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| TSUI, WILSON W | |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/675,593 | MORGAN ET AL. | |
| | Examiner | Art Unit | |
| | WILSON TSUI | 2178 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *13 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *26-65* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *26-65* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. This final action is in response to the RCE filed on: 10/13/08.

2. Claims 1-25 are cancelled. Claims 26, 31, 32, and 42 are amended. Claims 26 — 65 are pending.

3. Claims 26, 27, 29, 30, 47-49, 51, and 58-60 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al in view of Whalen et al, and further in view of Delph.

4. Claim 28 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al, in view of Whalen et al, in view of Delph, and further in view of Stone et al.

5. Claims 31, 32, and 39 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lefeber et al in view of Logan et al, in view of Whalen et al, in view of Delph, and further in view of Jeyarman et al.

6. Claim 33, 34, 35, and 36 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lefeber et al, in view of Logan et al, in view of Whalen et al, in view of Delph, in view of Jeyarman et al, and further in view of Su et al.

7. Claim 37 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Lefeber et al, in view of Logan et al, in view of Whalen et al, in view of Delph, in view of Jeyarman et al, and further in view of Scheinkman.

8. Claim 38, and 41 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lefeber et al, in view of Logan et al, in view of Whalen et al, in view of Delph, in view of Jeyarman et al, and further in view of SearchSecurity.

9. Claim 40 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Lefeber et al, in view of Logan et al, in view of Whalen et al, in view of Delph, in view of Jeyarman et al, and further in view of Ballard.

10. Claims 42-45 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al in further view of Delph.

11. Claim 46 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al, in view of Delph, and further in view of Stone et al.

12. Claims 50 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al, in view of Whalen et al, in view of Delph, and further in view of Smith et al.

13. Claims 52, 53, 55, and 63-65 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al, in view of Whalen et al, in view of Delph, and further in view of Lefeber et al.

14. Claim 54 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al, in view of Whalen et al, in view of Delph, and further in view of Lefeber et al in further view of Smith et al.

15. Claims 56, and 57 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al, in view of Whalen et al, in view of Delph, and further in view of Ballard and further in view of Hanson et al.

16. Claims 61 and 62 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Logan, in view of Whalen et al, in view of Delph, and further in view of Ballard.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17. Claims 26, 27, 29, 30, 47-49, 51, and 58-60 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al (US Patent Number: 5,781, 909, issued: Jul 4, 1998, filed: Feb 13, 1996) in view of Whalen et al (US Patent: 5948066, issued: Sep. 7, 1999, filed: Mar. 13, 1997), and further in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997).

With regards to claim 26, Logan et al teaches a method comprising:

- *Receiving a rotation set comprising a list identifying pages to be displayed in a predetermined sequence*: Each client receives and stores a control file, which comprises a transition list. The file is cyclically scanned for display/page entries and thus, represents a rotation set (Logan et al, column 2, lines 16-18). Furthermore, a subset of a transition control list (column 9, lines 15-42: whereas a control list/rotation-set is defined) is received at the client to be displayed in a predetermined sequence (column 10, lines 1-15: whereas pages are identified to be displayed in a predetermined sequence by receiving a subset transition list/rotation-set from a server-push mechanism)).

- *Retrieving, from the cache, pages identified in the rotation set that are stored in the cache* (Logan et al, column 5, lines 40-47: whereas, pages that are stored in rotation set in cache are retrieved from cache)
- *Sending at least one request for* pages *identified in the rotation set* (Logan et al, column 6, line 36: whereas, a remote URL is referenced to access a page that is not stored in cache) *that is not stored in the cache*. Logan et al, additionally teaches in column 6, line 36, and column 18, lines 46-58: A remote server is sent a "if modified since" message, when requesting for a new/updated version of a page that is not in stored in the cache, such that the old version (which is different from the new version), is replaced with a new version)

- *Receiving the requested pages in response to the at least one request* (Logan et al, column 6, lines 55-56, and column 6, line 36, and column 18, lines 46-58: whereas, incoming HTML pages are received in response to the request)
- *Storing the received pages in the cache*: Received pages are then used to rewrite/update files stored in cache (Logan et al, column 10, lines 15-18: whereas, "locally stored HTML documents may be stored in rewritten form").
- *Displaying each page of the rotation set, wherein the pages are retrieved from the cache and displayed in* a repeating sequence *until a new rotation set is received*: The pages are displayed in repeating sequence by cycling through the transition list (Logan et al, column 9, lines 48-56), until the list/set is received/updated through a server push mechanism (Logan et al, column 10, lines 1-3).

- *Receiving a notice of a change to a rotation set* (column 19, lines 48-67: whereas, the client receives a notice of change/modification for one of a plurality of links in the rotation set.)
- *Transmitting a request for a page containing the changed data in response to the notice* (column 19, lines 48-67: whereas, the modified version of a page is requested)
- *Receiving a page containing the changed data* (column 19, lines 48-67: whereas, the modified version of a page is requested).

However, Logan et al does not expressly teach *determining that at least one page identified in the rotation set is not stored in a cache associated with the display device, and* sending, *to the remote server*, at least one request for *the at least one page* identified in the set that is not stored in the cache, and each page in the rotation set, ... receiving a notice of change to the rotations set *during display of the rotation set pages in a substantially continuous loop.*

Yet, Whalen et al teaches *determining that at least one page identified in the rotation set is not stored in a cache associated with the display device, and* sending, *to the remote server*, at least one request for *the at least one page* identified in the set that is not stored in the cache (column 3, lines 45-57: whereas a mobile client determines that a page is not present within local cache, and a request is sent to the remote server for the at least one page).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al's cache system, such that a page is requested when not present within cache, as taught by Whalen et al. The combination of Logan et al and Whalen et al would have allowed. Logan et al to have reduced delays of narrow band high latency connections (Whalen et al, column 1, lines 35-43).

However, the combination of Logan et al and Whalen et al does not expressly teach each page in the rotation set ... receiving a notice of change to the rotation set *during display of the rotation set pages in a substantially continuous loop*.

Yet, Delph teaches each page in the rotation set, and receiving a notice of change to the rotations set *during display of the rotation set pages in a substantially continuous loop* (column 5, lines 1-15, and column 7, lines 26-31: whereas, advertisers can provide an update of information (notice) to the list of pages on a real time basis).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al, and Whalen et al's list of display pages, such that the list of pages are displayed in a loop, as taught by Delph. The combination would have allowed Logan et al to have "facilitated the ability of a computer user to visit a variety of Internet sites in a preset order" (Delph, column 2, lines 30-32), such that the kiosks' screen displayed can be consistently refreshed (Delph, abstract).

With regards to claim 27, which depends on claim 26, Logan et al teaches a method wherein: *The rotation set further indicates a time period, corresponding to each identified page, for displaying the identified page, and each page is displayed for the*

*time period corresponding to the page* (Logan et al, column 9, lines 24-33: whereas, there is a transition control list that contains a set of URLs. The amount of time / duration of an identified URL for display is based on the Showtime field).

With regards to claim 29, which depends on claim 26, Logan et al teaches a method wherein, *the at least one request is sent using hypertext transfer protocol (HTTP)* (Logan et al, column 6, line 35-36: whereas, information is requested from a remote serving using HTTP).

With regards to claim 30, which depends on claim 26, Logan et al teaches a method wherein, *displaying the page comprises displaying the page using a web browser* (Logan et al, column 6, lines 17-20: whereas, the page is sent to a web browser).

With regards to claim 47, which is dependent on claim 26, Logan et al teaches:

- *Identifying at least one rotation set that identifies the page containing the changed data*: Each client *receives* and stores a control file, which is cyclically scanned for display/page entries and thus, represents a rotation set (Logan et al, column 2, lines 16-18). In addition, the rotation set used identifies the page containing changed data since each entry in the control file stores "a Chck field storing a time stamp indicated when the entry was last validated, a Mod field (for) storing a time stamp indicating when the corresponding local file was stored or last updated" (Logan et al, column 19, lines 7-10).

With regards to claim 48, which is dependent on claim 26, Logan et al teaches *the rotation set specifies a uniform resource locator for at least one page to be displayed*: Each client contains a control file, for which is cyclically scanned for display/page entries and thus, represents a rotation set (Logan et al, column 2, lines 16-18). Content is displayed and retrieved by first using the display control mechanism to parse through the control file/lookup table, for which the control file/lookup table contains a URL field (Logan et al, column 19, lines 1-7).

With regards to claim 49, which is dependent on claim 26, Logan et al teaches:

- *The rotation set*, in claim 47, and is rejected under the same rationale.
- The rotation set s*pecifies an amount of time for which the at least one page is to be displayed* (Logan et al, column 9, lines 24-33: whereas, there is a transition control list that contains a set of URLs. The amount of time / duration of an identified URL for display is based on the Showtime field).

With regards to claim 51, which is dependent on claim 26, Logan et al teaches *hypertext transfer protocol being used to transmit the page to the display device* (Figure 6: whereas, as shown , Hypertext transfer protocol/ HTTP, is used to transfer web page data)

With regards to claim 58, which is dependent on claim 26, Logan et al teaches *receiving an indication of the change in the rotation set* (column 19, lines 48-67: whereas, a indication of change/modification is received, with respect to a change in the rotation set).

With regards to claim 59, which is dependent on claim 26, Logan et al teaches *storing the page containing the changed data for access by the display device* (column 19, lines 48-67: whereas, the page containing the changed data is stored).

With regards to claim 60, which depends on claim 26, Logan et al teaches *defining a page using hypertext markup language* (Logan et al, column 4, lines 14-25: whereas, the client devices have web browsers that retrieve web pages written in HTML).

18. Claim 28 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al (US Patent Number: 5,781, 909, issued: Jul 4, 1998, filed: Feb 13, 1996), in view of Whalen et al (US Patent: 5948066, issued: Sep. 7, 1999, filed: Mar. 13, 1997), in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997), and further in view of Stone et al (US 2002/0078134 A1, published: Jun. 20, 2002, filed: Dec. 18, 2000).

With regards to claim 28, which is dependent on claim 26, Logan et al teaches a *rotation set*, in claim 26, and is rejected under the same rationale. However, Logan does not teach the rotation set *comprises extensible markup language*.

Stone et al teaches identifying changed web content by using *XML code* (Stone et al, paragraph 0039).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al's rotation set to hold web content data comprised of XML code as taught by Stone et al. The combination would have allowed Logan et al, Whalen et al, and Delph's system to have provided for a "structured syntax for data exchange" (Stone et al, paragraph 0037).

19. Claims 31, 32, and 39 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lefeber et al (US Application: 2002/0046299, published: Apr. 18, 2002, filed: Dec. 6, 2000) in view of Logan et al (US Patent Number: 5,781, 909, issued: Jul 4, 1998, filed: Feb 13, 1996), in view of Whalen et al (US Patent: 5948066, issued: Sep. 7, 1999, filed: Mar. 13, 1997), in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997), and further in view of Jeyarman et al (US Patent: 6,311,187 B1, issued: Oct. 30, 2001, filed: Dec. 29, 1998).

With regards to claim 31, Lefeber et al teaches a system for displaying information on a set of displays comprising:

- *A database for storing data to be displayed* (Lefeber et al, Figure 4, reference number 409: whereas, a web server stores the data to be displayed).
- *At least one server adapted to respond to a change in the stored data to be displayed by identifying at least one client adapted to display the stored data and*

*notifying the at least one client of the change in the stored data* (Lefeber et al, paragraph 63: whereas, a signaling server responds to the change in stored data to be displayed by contacting the client using client location and device type information)

- *Receive a request for a page containing the changed data*: (Lefeber et al, paragraph 51: whereas the server uses guaranteed signaling by waiting to receive a request for the changed data).
- *Generate the requested page* (Lefeber et al, paragraph 66: whereas, a web page is crafted by the network).
- *Send the page to a client that displays the page in response to the received request* (Lefeber et al, paragraph 69: whereas, the crafted page is sent to the client device).

However, Lefeber et al does not expressly teach *the at least one display device adapted to*:

- *Receive a rotation set comprising a list identifying pages to be displayed in a predetermined sequence*
- *Retrieve, from the cache, pages that are stored in the cache*
- *Determine that at least on page identified in the rotation set is not stored in a cache associated with the display*
- *Send to a remote server at least one request for the at least one page that is not stored in the cache to at least one server*

- *Receive the requested page in response to the at least one request*
- *Store the received pages in the cache*
- *Display each page, wherein the pages are retrieved from the cache and displayed in the predetermined sequence repeatedly in a substantially continuous loop until a new rotation set is received*
- *Receive a notice of the change in the stored data during display* of the rotation set pages in a substantially continuous loop*;*
- *Transmit the request for the page containing the changed data*
- *Receive the page containing the changed data*

Logan et al and Whalen et al teaches *the at least one display device adapted to*:

- *Receive a rotation set comprising a list identifying pages to be displayed in a predetermined sequence,* as similarly explained in the rejection for claim 26, and is rejected under similar rationale.
- *Retrieve, from the cache, pages identified in the rotation set that are stored in the cache,* as similarly explained in the rejection for claim 26, and is rejected under similar rationale.
- *Determine that at least one page identified in the rotation set is not stored in a cache associated with the display device*, as similarly explained in the rejection for claim 26, and is rejected under similar rationale.
- *Send to a remote server at least one request for pages identified in the rotation set that are not stored in the cache to at least one server,* as similarly explained in the rejection for claim 26, and is rejected under similar rationale.

- *Receive the requested page in response to the at least one request*, as similarly explained in the rejection for claim 26, and is rejected under similar rationale.
- *Store the received pages in the cache,* as similarly explained in the rejection for claim 26, and is rejected under similar rationale.
- *Display each page of the rotation set, wherein the pages are retrieved from the cache and displayed in the predetermined sequence repeatedly until a new rotation set is received,* as similarly explained in the rejection for claim 26, and is rejected under similar rationale.
- *Transmit the request for the page containing the changed data,* as similarly explained in the rejection for claim 26, and is rejected under similar rationale.
- *Receive the page containing the changed data,* as similarly explained in the rejection for claim 26, and is rejected under similar rationale.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Lefeber et al's change detection system, such that Lefeber et al would have included the page transfer system using cached data, as taught by Logan et al. The combination of Lefeber et al, and Logan et al, and Whalen et al would have allowed Lefeber et al to have "controlled the data made available at the display unit" (column 2, lines 34-36).

However, Lefeber et al and Logan et al does not expressly teach *identifying at least one client displaying previously stored data, and* display each page of the rotation set … in the predetermined sequence *in a substantially continuous loop, and receive a notice of the change in the stored data during display* of the rotation set pages in a substantially continuous loop.

Yet, the combination Delph teaches display each page of the rotation set … in the predetermined sequence *in a substantially continuous loop* (column 6, lines 5-30: whereas pages are displayed in a continuous loop), and *Receive a notice of the change in the stored data during display* of the rotation set pages in a substantially continuous loop (column 5, lines 1-15, and column 7, lines 26-31: whereas, advertisers can provide an update of information (notice) to the list of pages on a real time basis).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Lefeber et al, Logan et al, and Whalen et al's list of display pages, such that the list of pages are displayed in a loop, as taught by Delph. The combination would have allowed Logan et al to have "facilitated the ability of a computer user to visit a variety of Internet sites in a preset order" (Delph, column 2, lines 30-32), such that the kiosks' screen displayed can be consistently refreshed (Delph, abstract).

However, the combination of Lefeber et al, Logan et al, Whalen et al, and Delph do not expressly teach *identifying at least one client displaying previously stored data.*

Yet, Jeyarman et al teaches *identifying at least one client displaying previously stored data* (column 2, lines 1-25: whereas, a system “determine(s) differences between the current version of data at the server and an older copy of the data at the client,

which the server has stored locally" , and "…sending the update to the client where the update is applied to the copy of the data to produce an updated copy of the data").

It would have been obvious to one of the ordinary skill in the at the time of the invention to have modified Lefeber et al, Logan et al, and Whalen et al's system for storing data to be displayed, to further include identifying at least one client displaying previously stored data, as taught by Jeyarman et al. The combination of Lefeber et al, Logan et al, Whalen et al, Delph, and Jeyarman et al would have allowed Lefeber et al's system to have "updated copies of the data on local machines and proxy servers" (Jeyarman et al, column 1, lines 66-67).

With regards to claim 32, which is dependent on claim 31, Lefeber et al teaches a system wherein *the database notifies the at least one server when the data to be displayed has changed* (Lefeber et al, paragraph 062: whereas, a web server (figure 4, reference 409) that stores the data to be displayed, notifies the signaling server (figure 4, reference 402) that data to be displayed has changed).

With regards to claim 39, which is dependent on claim 31, Lefeber teaches a system wherein the at least one server further comprises a page maker module adapted to generate the requested pages using the changed data in the database and using formatting data defining the content and layout of the pages (Lefeber et al, paragraph 0066: whereas, a web server (figure 4, reference 409) generates a web page using changed data (in this case a bid price has changed). Furthermore, web pages

inherently have some form of HTML, which comprises markup for defining content and layout of a page).

20. Claim 33, 34, 35, and 36 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lefeber et al (US Application: 2002/0046299, published: Apr. 18, 2002, filed: Dec. 6, 2000), in view of Logan et al (US Application: US 2004/0039776 A1, issued: Feb. 26,2004, filed: Aug. 26, 2002), in view of Whalen et al (US Patent: 5948066, issued: Sep. 7, 1999, filed: Mar. 13, 1997), in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997), in view of Jeyarman et al (US Patent: 6,311,187 B1, issued: Oct. 30, 2001, filed: Dec. 29, 1998), and further in view of Su et al (US Application: 2003/0084124 A1, published: May 1, 2003, filed: Oct. 31, 2001).

With regards to claim 33, which depends on claim 31, Lefeber et al does not teach a system *wherein the at least one server comprises a configuration management module adapted to identify rotation sets that include at least one page affected by the change in the stored data, with each rotation set comprising a list of pages to be displayed by a display device to which the rotation set is assigned.*

Logan et al teaches *rotation sets that include at least one page affected by the change in the stored data, with each rotation set comprising a list of pages to be displayed by a display device to which the rotation set is assigned*: Each client receives and stores a control file, which comprises a transition list. The file is cyclically scanned

for display/page entries and thus, represents a rotation set (Logan et al, column 2, lines 16-18). Each rotation set is updated due to at least one page affected by a change in data (Logan et al, column 19, lines 52-58: whereas, a page that has been affected by a change in stored data is identified).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Lefeber et al, Logan et al, Whalen et al, and Jeyarman et al's alert server, to further include the ability to send rotation sets containing one or more pages affected by changed data, as also taught by Logan et al. The combination of Lefeber et al, Jeyarman et al , Logan et al, and Whalen et al would have allowed Lefeber et al's notification system to send an updated pages for clients to display.

However, Lefeber et al, Logan et al, Delph, and Jeyarman et al do not teach *identifying rotation sets*.

Su et al teaches *identifying rotation sets* since "the server includes a plurality of pages of information stored thereon that may be transferred to the client station" (paragraph 0016). The set of pages is represented as a list of pages for client display as shown in Figure 6. Furthermore, each rotation set is identified, since the server maps each set of pages to each user based on profile information (paragraph 0031), such that if there is a *page that has been affected by stored data*, a new rotation set is sent to the user (Su et al, paragraph 0024).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Lefeber et al, Logan et al, Whalen et al and Jeyarman et al's alert server to further include the ability to identify the rotation set that contains one or

more pages affected by a change in data, as taught by Su et al. The combination of Lefeber et al, Logan et al, Whalen et al, Delph, Jeyarman et al, and Su et al would have allowed Lefeber et al's system to have "automatically provided information to a user .... without user intervention" (Su et al, paragraph 0006).

With regards to claim 34, which is dependent on claim 33, Lefeber et al, Logan et al, Delph, and Jeyarman et al teaches a system comprising:
An alert/signaling *server that notifies at least one client of a change in data*, in claim 31, and is rejected under the same rationale.

Additionally, as explained in the rejection for claim 26, Logan et al teaches pages stored/retrieved in/from cache. Furthermore, Logan et al teaches the storage/retrieval of pages in/from cache include *at least one* server [that] is adapted to notify the at least one *display device* by *sending, to the at least one display device, a rotation set* (Each client receives and stores a control file, which is cyclically scanned for display/page entries and thus, represents a rotation set (Logan et al, column 2, lines 16-18)) *that includes at least one page affected by the change in the stored data* (as explained in the rejection for claim 33, and is rejected under similar rationale).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Lefeber et al and Jeyarman et al's alert server to further include the ability to notify display devices/clients that of a rotation set that contains at least one page affected by a change in stored data as taught by Logan et al. The combination of Lefeber et al, Jeyarman et al, Logan et al, Whalen et al, Delph, and Su

et al would have allowed the client's of Lefeber et al's system to have displayed an updated set of pages.

With regards to claim 35, which is dependent on claim 33, Lefeber et al, does not teach a system *comprising a local cache associated with the at least one display device/client, wherein each local cache stores pages identified in the rotation set for the associated display device/client and the associated display device/client displays each page identified in rotation set assigned to the display device/client until the display device/client receives a rotation set that does not identify the page.*

However Logan et al teaches a system wherein:

- *A local cache associated with the at least one display device/client* (Logan et al, column 19, lines 13-19: whereas, files mapped to URLs can be stored at each the client).
- *Each local cache stores pages identified in the rotation set for the associated display device/client*: (Logan et al, column 6, linasdes 6-36: whereas, using a rotation set, an access mechanism is used to translate URLs into local disk addresses (cache) at the client)
- *The associated display device/client displays each page identified in rotation set assigned to the display device/client until the display device/client receives a rotation set that does not identify the page*: The pages are displayed in repeating sequence by cycling through the transition list (Logan et al, column 9, lines 48-

56), until the list/set is received/updated through a server push mechanism (Logan et al, column 10, lines 1-3).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Lefeber et al and Jeyarman et al's notification system to further include the caching of rotation sets as taught by Logan et al. The combination of Lefeber et al, Whalen et al, Delph, Jeyarman et al, Logan et al, and Su et al, would have allowed Lefeber et al's system to have retrieved rotation set data more efficiently by reducing remote communications overhead.

With regards to claim 36, which depends on claim 33, Lefeber, Logan et al, Delph, and Jeyarman et al do not teach a system *wherein the configuration management module is further adapted to store data regarding the content and layout of the at least one page*.

Su et al teaches a *configuration management module is further adapted to store data regarding the content and layout of the at least one page*, as the control module in the server maintains content information (including a plurality of pages as shown in Figure 5, reference numbers 41-43). Furthermore, any pages that have content, also inherently has one or more layout properties for each of them as well.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Lefeber et al and Jeyarman et al's notification system to further include a configuration module that stores content and layout data as taught by

Su et al. The combination of Lefeber et al, Jeyarman et al, Whalen et al, Delph, Logan et al, and Su et al, would have allowed Lefeber et al's system to have been able to send customized page data (with respect to layout and content) to clients that have particular settings, resources, or displays.

21. Claim 37 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Lefeber et al (US Application: 2002/0046299, published: Apr. 18, 2002, filed: Dec. 6, 2000), in view of Logan et al (US Application: US 2004/0039776 A1, issued: Feb. 26,2004, filed: Aug. 26, 2002), in view of Whalen et al (US Patent: 5948066, issued: Sep. 7, 1999, filed: Mar. 13, 1997), in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997), in view of Jeyarman et al (US Patent: 6,311,187 B1, issued: Oct. 30, 2001, filed: Dec. 29, 1998), and further in view of Scheinkman (US Application: US 2003/0005129 A1, published: Jan 2, 2003, filed: May 13, 2002).

With regards to claim 37, which depends on claim 31, Lefeber et al, Logan et al, Whalen et al, and Jeyarman et al teaches a system that *sends a notification of change in stored data to a display device/client*, in claim 31 and is rejected under the same rationale. However Lefeber et al does not teach *maintaining an open connection with each display device/client.*

Scheinkman teaches *maintaining an open connection with a display device/client* (Scheinkman, paragraph 0020: whereas, an open connection is implemented between an alert server and a client/browser).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Lefeber et al and Jeyarman et al's notification system such that notification messages can be sent though the open connection that is taught by Scheinkman. The combination of Lefeber et al, Logan et al, Whalen et al, Delph, Jeyarman et al, and Scheinkman would have allowed Lefeber et al's system to have sent "information between computers on a real time basis" (Scheinkman, paragraph 0007).

22. Claim 38, and 41 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lefeber et al (US Application: 2002/0046299, published: Apr. 18, 2002, filed: Dec. 6, 2000), in view of Logan et al (US Application: US 2004/0039776 A1, issued: Feb. 26,2004, filed: Aug. 26, 2002), in view of Whalen et al (US Patent: 5948066, issued: Sep. 7, 1999, filed: Mar. 13, 1997), in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997), in view of Jeyarman et al (US Patent: 6,311,187 B1, issued: Oct. 30, 2001, filed: Dec. 29, 1998), and further in view of SearchSecurity (SearchSecurity.com, pages 1-3, published Oct, 5, 2000).

With regards to claim 38, which depends on claim 31, Lefeber et al, Logan et al, and Jeyarman et al do not teach a system wherein *the server further comprises cache for storing previously requested pages and the server is adapted to retrieve, from the cache, requested pages stored in the cache to send to the client that displays the page.*

However, SearchSecurity teaches *the server further comprises cache for storing previously requested pages and the server is adapted to retrieve, from the cache, requested pages stored in the cache to send to the client that displays the page* (SearchSecurity, page 1, Pa3: whereas, a proxy server comprises cache for storing previously requested pages without having to forward the request to the internet, and instead, returns the cached page to the user/client).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Lefeber et al's notification system to further include a proxy server that is capable of caching previously requested pages. The combination of Lefeber et al, Logan et al, Whalen et al, Delph, and Jeyarman et al, and SearchSecurity would have allowed Lefeber et al's system to have "improved user response time" (SearchSecurity, Pa5).

With regards to claim 41, which depends on claim 31, Lefeber et al, Logan et al, and Jeyarman et al do not teach a system wherein *a site cache stores pages displayed by a plurality of different display devices/clients, where the site cache is adapted to respond to a request for a page stored in the site cache by sending the requested page to a display device/client that requested the page.*

However, SearchSecurity teaches *a site cache stores pages displayed by a plurality of different display devices/clients, where the site cache is adapted to respond to a request for a page stored in the site cache by sending the requested page to a display device/client that requested the page* (SearchSecurity, page 1, Pa2: whereas, a proxy

server acts as a intermediary server for a particular enterprise/site. The proxy server includes a cache, such that a page stored in the cache is forwarded to the requesting client).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Lefeber et al, Logan et al, Whalen et al, Delph, and Jeyarman et al's notification system to further include a server to act as a site cache as taught by SearchSecurity. The combination of Lefeber et al, Logan et al, Whalen et al, Jeyarman et al, and Search Security would have allowed Lefeber et al's system to have "improved user response time" (SearchSecurity, Pa5).

23. Claim 40 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Lefeber et al (US Application: 2002/0046299, published: Apr. 18, 2002, filed: Dec. 6, 2000), in view of Logan et al (US Application: US 2004/0039776 A1, issued: Feb. 26,2004, filed: Aug. 26, 2002), in view of Whalen et al (US Patent: 5948066, issued: Sep. 7, 1999, filed: Mar. 13, 1997), in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997), in view of Jeyarman et al (US Patent: 6,311,187 B1, issued: Oct. 30, 2001, filed: Dec. 29, 1998), and further in view of Ballard (US Application: US 2004/0039776 A1, published: Feb. 26,2004, filed: Aug. 26, 2002).

With regards to claim 40, which is dependent on claim 39, Lefeber et al, Logan et al, Whalen et al, and Jeyarman et al teaches a system comprising a *page maker module* for generating pages using changed data in the database and using *formatting*

*data*, in claim 31, and is rejected under the same rationale. However Lefeber et al does not teach *at least one panel generator for generating panels, with each page constructed from a plurality of panels as defined by the formatting data.*

Ballard teaches *at least one panel generator for generating panels, with each page constructed from a plurality of panels as defined by the formatting data* (Ballard, paragraph 0027: whereas, a server builds a refresh frame/panel and sends it to the client's browser for display. Fig. 3 shows a plurality of panels, each with their own inherent formatting).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Lefeber et al, Logan et al, Whalen et al, Delph, and Jeyarman et al's page maker module for generating pages, to further include a system for generating one or more panels as taught by Ballard. The combination would have allowed Lefeber et al's system to have updated clients such that changes of data with respect to a web page is propagated to displayed panels as well.

24. Claims 42-45 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al (US Patent Number: 5,781, 909, issued: Jul 4, 1998, filed: Feb 13, 1996) in further view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997).

With regards to claim 42, Logan et al teaches an article comprising a machine-readable medium storing instructions for causing one or more processors to perform the operations comprising:

- *Receiving, a list of pages to be displayed*: Each client receives and stores a control file, which comprises a transition list. The file is cyclically scanned for display/page entries and thus, represents a rotation set (Logan et al, column 2, lines 16-18).
- *Retrieving, from a local cache, pages in the list that are stored in the local cache:* (Logan et al, column 5, lines 40-47: whereas, pages that are stored in cache are retrieved from cache)
- *Requesting, from a remote server, pages in the list that are not stored in the local cache* (Logan et al, column 6, line 36: whereas, remote URLs can be referenced to access pages that are not stored in cache).
- *Receiving pages from the remote server* (Logan et al, column 6, lines 55-56: whereas, incoming HTML pages are received in response to the request and is processed by the access control mechanism)
- *Storing the received pages in the local cache*: Received pages are then used to rewrite/update files stored in cache (Logan et al, column 10, lines 15-18: whereas, "locally stored HTML documents may be stored in rewritten form").
- *Displaying the pages in the list in* a repeating sequence*, using the pages stored in the local cache, until a new list of pages is received*: The pages are displayed in repeating sequence by cycling through the transition list (Logan et al, column

9, lines 48-56), until the list/set is received/updated through a server push mechanism (Logan et al, column 10, lines 1-3).

- *Receiving a notice of change to the list of pages*, (column 19, lines 48-67: whereas, the client receives a notice of change/modification for one of a plurality of links in the rotation set.)
- *Transmitting a request for a page of the list of pages containing the changed data in response to the notice,* (column 19, lines 48-67: whereas, the modified version of a page is requested).
- *Receiving the page containing the changed data*, (column 19, lines 48-67: whereas, the modified version of a page is requested).

However, Logan et al does not expressly teach the repeating sequence is displayed in a *substantially continuous loop,* and receiving a notice of change to the list of pages *during display of pages in the list in a substantially continuous loop*.

Yet, Delph teaches the repeating sequence is displayed in a *substantially continuous loop* (column 6, lines 5-30: whereas pages are displayed in a continuous loop), and *receiving a notice of a change to the list of pages during display of pages in the list in a substantially continuous loop* (column 5, lines 1-15, and column 7, lines 26-31: whereas, advertisers can provide an update of information (notice) to the list of pages on a real time basis).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al's list of display pages, such that the list of pages

are displayed in a loop, as taught by Delph. The combination would have allowed Logan et al to have "facilitated the ability of a computer user to visit a variety of Internet sites in a preset order" (Delph, column 2, lines 30-32), such that the kiosks' screen displayed can be consistently refreshed (Delph, abstract).

With regards to claim 43, which depends on claim 42, Logan et al teaches an article wherein *the list of pages comprises a uniform resource locator (URL) associated with each page* (Logan et al, See Figure 13, reference number 600) *and a specific page is requested from the remote server using a hypertext transfer protocol (HTTP) request containing the URL associated with the specific page* (Logan et al, column 6, line 35-36: whereas, a HTTP request is made for a specific page).

With regards to claim 44, which depends on claim 42, Logan et al teaches an article wherein the machine readable medium stores instructions for causing one or more processors to perform further operations *comprising displaying each page in the list of pages for a predetermined amount of time in each repetition of the repeating sequence* (Logan et al, column 9, lines 24-33: whereas, there is a transition control list that contains a set of URLs. The amount of time / duration of an identified URL for display is based on the Showtime field).

With regards to claim 45, which depends on claim 42, Logan et al teaches an article wherein the machine readable medium stores instructions for causing one or more processors to perform further operations comprising:

- *Receiving a new list of pages* (Logan et al, column 10, lines 1-14: whereas, a new list of pages is received through a server push mechanism)
- *Identifying pages in the new list that differ from the pages stored in the local cache*: Pages in the new list that differ from pages stored in the local cache are identified through a validation routine (Logan et al, column 19, lines 52-58)

*Requesting the identified pages from the remote server* (Logan et al, column 19, lines 52-58: whereas, the identified pages are "retrieved and stored locally" from a remote server)

25. Claim 46 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al (US Patent Number: 5,781, 909, issued: Jul 4, 1998, filed: Feb 13, 1996), in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997), and further in view of Stone et al (US 2002/0078134 A1, published: Jun. 20, 2002, filed: Dec. 18, 2000).

With regards to claim 46, which is dependent on claim 42, Logan et al teaches *a list of pages* in claim 42, and is rejected under the same rationale. However, Logan et al does not teach the rotation set comprises *extensible markup language*.

Stone et al teaches identifying changed web content by using *XML code* (Stone et al, paragraph 0039).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al's list of web pages to hold web content data comprised of XML code as taught by Stone et al. The combination would have allowed Logan et al's system to have provided a "structured syntax for data exchange" (Stone et al, paragraph 0037).

26. Claims 50 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al (US Patent Number: 5,781, 909, issued: Jul 4, 1998, filed: Feb 13, 1996), in view of Whalen et al (US Patent: 5948066, issued: Sep. 7, 1999, filed: Mar. 13, 1997), in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997), and further in view of Smith et al (US Application: 2002/0016839 A1, published: Feb. 7, 2002, filed: May 31, 2001).

With regards to claim 50, which is dependent on claim 26,

Logan et al teaches

- *Receiving the notice of the change to the rotation set,* in the rejection for claim 26, and is rejected under similar rationale. Furthermore Logan also teaches *receiving at least one rotation set*, in claim 47, and is rejected under the same rationale.
- *The pages identified by the at least one rotation set reflecting the change in the displayed data:* The control file/rotation set is transferred to each client unit(Logan et al, Abstract) and including pages that have been identified by the

rotation set. The page(s) containing the changed information have been identified in a rotation set by checking if there is difference in time between the Chk field and the Mod field (Logan et al, column 19, lines 52-58: whereas, the updated file(s) is/are modified and identified if the Mod and Chk fields indicate the same time, and thus reflect that the page(s) have changed in the displayed data).

However, Logan et al does not expressly teach receiving the notice of the change to the rotation set *includes* receiving at least one rotation set.

Smith et al teaches *sending to a set of display devices/*clients *in response to identifying a change in displayed,* a data object: (Smith et al, paragraphs 0014 and 0015: whereas, clients displaying the changed data, retrieve the updated data objects from the client session manager).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan's rotation set, such that upon notification of change in data, a new data object (such as a rotation set) is appropriately included to be received by a display device/client(s). The combination of Logan et al, Whalen et al, Delph, and Smith et al would have allowed Logan et al's change notification system to have "forwarded the state change information for transmission to the client" (Smith et al, paragraph 0014).

27. Claims 52, 53, 55, and 63-65 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al (US Patent Number: 5,781, 909, issued: Jul 4, 1998, filed: Feb 13, 1996), in view of Whalen et al (US Patent: 5948066, issued: Sep. 7, 1999,

filed: Mar. 13, 1997), in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997), and further in view of Lefeber et al (US Application: 2002/0046299, published: Apr. 18, 2002, filed: Dec. 6, 2000).

With regards to claim 52, which is dependent on claim 26, Logan et al teaches a *rotation set,* in claim 26, and is rejected under the same rationale.

However, Logan et al does not expressly teach *sending, instructions to request pages that contain changed data in response to receiving a rotation set.*

Lefeber et al teaches *sending, to the set of clients, instructions to request pages that contain changed data in response to receiving an* alert signal (Lefeber et al, paragraph 0054: whereas, the instructions are sent to a client device such that a web browser can be automatically launched to go to a specific web page that references URLs related to an event (such as change in data)).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al's rotation set, such that the rotation set is received in response to receiving data (such as upon receiving a rotation set), as taught by Lefeber et al. The combination of Logan et al, and Lefeber et al, Whalen et al, and Delph would have allowed Logan et al's system to optimize the bandwidth used by the client devices as this would allow only changed pages to have been downloaded by the clients, instead of the entire set.

With regards to claim 53, which is dependent on claim 26, Logan et al, Whalen et al, Delph, and Lefeber et al teach a method comprising: *sending, instructions to display the pages identified by a received rotation set*, in claim 52, and is rejected under the same rationale. Also, Logan et al teaches sending to the set of clients, instructions (thus, clients receive instructions) for each client to display the pages identified by a received rotation set *at least until receiving a new rotation set*: "A server-push mechanism may be used to insert a sequence of one or more leading pages prior to the trailing page" (Logan et al, column 10, lines 1-8: whereas, in the control file, a selection of pages are inserted into a display queue, and thus, instructs the display unit to display the pages as identified in the rotation set).

With regards to claim 55, which is dependent on claim 53, Logan teaches a method for sending to the set of clients, *the instructions for each client to display the pages identified by the received rotation set*: ("A server-push mechanism may be used to insert a sequence of one or more leading pages prior to the trailing page" (column 10, lines 1-8: whereas, in the control file, a selection of pages are inserted into a display queue, and thus, instructs the display unit to display the pages as identified in the rotation set)). Additionally, Logan teaches:

- *Hypertext transfer protocol is used to send* (Figure 6: whereas, hypertext transfer protocol (HTTP) is used to send data)
- *Sending to a set of clients* (column 1, lines 41-48: whereas, control data is send to one or more clients)

With regards to claim 63, which depends on claim 26, Lefeber teaches sending instructions to request pages that contain changed data, as explained in the rejection for claim 26. Furthermore Lefeber et al teaches the instructions also includes *a name of the page containing the changed data* (which) *specifies the changed data to be retrieved* (Lefeber et al, paragraph 0070: whereas, the name of the page containing changed data is inherently specified, since a server redirects the client to a the web page containing changed data using a URL, which ultimately leads to the retrieval of specific page of data (which has file name)).

With regards to claim 64, which depends on claim 26, Lefeber teaches sending instructions to request pages that contain changed data, as explained in the rejection for claim 26. Furthermore Lefeber et al teaches a method wherein, *the request complies with the hypertext transfer protocol* (Lefeber et al, paragraph 0038: whereas, communication between client and server is made possible using network protocols that include HTTP).

With regards to claim 65, which depends on claim 26, Lefeber teaches sending instructions to request pages that contain changed data, as explained in the rejection for claim 26. Furthermore Lefeber et al teaches the instructions of the request includes *displaying the page that contains the changed data in a web browser* (Lefeber et al,

paragraph 0054: whereas, a web browser is launched and the client is redirected the page that contains the changed data).

28. Claim 54 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al (US Patent Number: 5,781, 909, issued: Jul 4, 1998, filed: Feb 13, 1996), in view of Whalen et al (US Patent: 5948066, issued: Sep. 7, 1999, filed: Mar. 13, 1997), in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997), and further in view of Lefeber et al (US Application: 2002/0046299, published: Apr. 18, 2002, filed: Dec. 6, 2000) in further view of Smith et al (US Application: 2002/0016839 A1, published: Feb. 7, 2002, filed: May 31, 2001).

With regards to claim 54, which is dependent on claim 53, Logan et al and Lefeber et al teach a method for *the instructions* in claim 52, and is rejected under the same rationale. However, Logan and Lefeber et al do not teach wherein the instructions *comprise portable, platform independent code*.

Smith et al teaches an information distribution system that is implemented with *portable, platform independent code* (Smith et al, paragraph 0031: whereas, JAVA is used to implement one or more Java Virtual Machines).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al and Lefeber et al's instructions to JAVA as taught by Smith et al. The combination of Lefeber et al, Whalen et al, Delph, Smith et al, and Logan et al would have allowed Logan et al's system to have established

communication with clients, regardless of the type of platform each client is running, thus reducing overhead cost for platform specific development.

29. Claims 56, and 57 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al (US Patent Number: 5,781, 909, issued: Jul 4, 1998, filed: Feb 13, 1996), in view of Whalen et al (US Patent: 5948066, issued: Sep. 7, 1999, filed: Mar. 13, 1997), in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997), and further in view of Ballard (US Application: US 2004/0039776 A1, published: Feb. 26,2004, filed: Aug. 26, 2002) and further in view of Hanson et al (US Patent: 6,985,950 B1, issued: Jan. 10, 2006, filed: Mar. 6, 2001).

With regards to claim 56, which depends on claim 26, Logan et al does not expressly teach: *Identifying a panel that contains the changed data, and identifying the page that contains the identified panel.*

However, Ballard teaches a method for *identifying a panel that contains the changed data* (Ballard, paragraph 0026: whereas, it is determined which data frames/panel displayed to the user need to be updated, due to new/changed data being available).

Furthermore, Logan et al, and Ballard are analogous art since they are from the same problem solving area: optimizing client/server communications.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al's page rotation system to further include the ability to selectively update a particular frame/panel as taught by Ballard. The combination of Logan et al, Whalen et al, Delph, and Ballard would have allowed Logan

et al's system to have "provided for refreshing of … frames" (Ballard, paragraph 0013) and also reduced the amount of "queries that often provide no new message information to the querying client" (Ballard, paragraph 0014).

However, Logan et al and Ballard do not teach *identifying the page that contains the identified panel*.

Hanson et al teaches *identifying the page that contains the identified panel* (Hanson et al, column 5, lines 25-36: whereas, meta information about each web page, and the frames that are contained within each of them, are generated).

Furthermore, Logan et al, Whalen et al, Delph, Ballard, and Hanson et al are analogous art since they are from the same problem solving area: client/server communication and the optimization of content retrieval/distribution.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al and Ballard's frame updating system to further include the web page and frame meta information as taught by Hanson et al. The combination of Logan et al, Whalen et al, Delph, Ballard, and Hanson et al, would have allowed Logan et al's system to have implemented a "database system optimized for categorizing pages" (Hanson et al, column 1, 55-57).

With regards to claim 57, which is dependent on claim 56, Logan et al does not teach a method wherein, *the panel that contains the changed data and the page that contains the identified panel are identified using XML code.*

However, Ballard teaches a method for:

- Identifying a *panel that contains the changed data*, in claim 12, and is rejected under the same rationale.
- *Using XML code* to implement the embodiments of Ballard's system (Ballard, paragraph 0066).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al's system to further include the ability to identify a panel that contains changed data using XML code as taught by Ballard. The combination of Logan et al, Whalen et al, Delph, Ballard, and Hanson et al would have allowed a universal and/or non-proprietary method for exchanging frame change identification data between server/client devices.

However, Logan et al, Whalen et al, Delph, and Ballard's system does not expressly teach *identifying the page that contains the identified panel*.

Hanson et al teaches *identifying the page that contains the identified panel*, in claim 12, and is rejected under the same rationale.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al, Whalen et al, Delph, and Ballard's method for identifying a panel that contains changed data using XML code, to further include identifying the page that contains the identified panel in XML as well. The combination would have allowed a universal and/or non-proprietary method for identifying the parent web page that contained the panel mapped to the changed data.

30. Claims 61 and 62 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Logan (US Patent Number: 5,781,909, issued: Jul 4, 1998, filed: Feb 13, 1996), in view of Whalen et al (US Patent: 5948066, issued: Sep. 7, 1999, filed: Mar. 13, 1997), in view of Delph (US Patent: 6,286,029 B1, issued: Sep. 4, 2001, filed: Apr. 28, 1997), and further in view of Ballard (US Application: US 2004/0039776 A1, published: Feb. 26,2004, filed: Aug. 26, 2002).

With regards to claim 61, which is dependent on claim 26, Logan et al does not teach a method for: *identifying the at least one panel that contains the changed data, retrieving the changed data, and generating the at least one identified panel using the changed data, wherein generating the page containing the changed data is performed using the at least one identified panel.*

However, Ballard et al teaches:

- *Identifying the at least one panel that contains the changed data*, in claim 12, and is rejected under the same rationale.
- *Retrieving the changed data* (Ballard, paragraph 0025: whereas, changed data is retrieved from a message database).
- *Generating the at least one identified panel using the changed data, wherein generating the page containing the changed data is performed using the at least one identified panel*: (Ballard, paragraph 0028: whereas, an identified frame/panel for a corresponding page is generated)

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al's notification system to include the ability for identifying the frame/panel that contains changed data, and update the identified frame/panel with the retrieved changed data. The combination of Logan et al, Whalen et al, Delph, and Ballard et al, would have allowed Logan et al's system to have "provided for the refreshing of … frames" (Ballard, paragraph 0013), such that only the relevant frame gets updated.

With regards to claim 62, which is dependent on claim 61, Logan et al teaches *retrieving* the page *containing the changed data from a cache in response to receiving the request, wherein generating* the page *containing the changed data is performed in response to a previously received request for* the page *containing the changed data*, in claim 20, and is rejected under the same rationale.

However, Logan et al do not teach *a panel containing changed data*.

Ballard et al teaches *a panel containing changed data* (Ballard, paragraph 0028: whereas, frames/panels are updated accordingly when there new/changed data available).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Logan et al's cache system to have further included a way to retrieve one or more panels from cache as taught by Ballard et al. The combination of Logan et al, Whalen et al, Delph, and Ballard et al would have allowed Lefeber et al's

system to have reduced overhead time for displaying changed panel data that has been retrieved previously.

***Response to Arguments***

31. The arguments filed on 10/13/08 have been fully considered but are considered not persuasive.

With respect to claim 42, the applicant argues that the combination of Logan and Delph fails to teach "*receiving a notice of a change to the list of pages during display of pages in the list in a substantially continuous loop*". However, this argument is considered not persuasive since Delph teaches displaying a list of pages in a substantially continuous loop (column 6, lines 5-30: whereas pages are displayed in a continuous loop), and *receiving a notice of a change to the list of pages during display of pages in the list in a substantially continuous loop* (column 5, lines 1-15, and column 7, lines 26-31: whereas, advertisers can provide an update of information (notice) to the list of pages on a real time basis).

With regards to claims 43-45 being allowable, since they depend upon claim 42; is not persuasive since claim 42 has been shown/explained to be rejected.

With regards to claim 46, for being allowable, since the rejection for claim 46 does not overcome the deficiencies discussed for claim 42; is not persuasive since claim 42 has been shown/explained to be rejected, as explained in the rejection above, and in the response to arguments.

With regards to claim 26, the applicant argues that "Whalen fails to resolve the deficiencies of Logan-Delph combination" [and] "it has not been shown how Whalen

teaches receiving a notice of a change to the rotation set during display of the rotation set pages in a substantially continuous loop". However, this argument is not persuasive since the combination of Logan and Delph teaches this limitation, and the examiner respectfully directs the applicant to the rejection for claim 42, and the response to arguments above for further explanation how this limitation has been taught.

With regards to claims 27, 29-30, 47-49, 51, and 58-60; for being allowable since they depend on an allowable claim 26, is not persuasive since claim 26 has been shown to be rejected.

With regards to claim 28 being allowable, since the rejection for claim 28 does not overcome the deficiencies discussed for claim 26; is not persuasive since claim 26 has been shown/explained to be rejected.

With regards to claim 31, for being allowable for reasons similar to 26 and 42 being allowable; is not persuasive since both claim 26 and 42 have been shown/explained to be rejected, as explained in the rejections above, and also in the response to arguments above.

With regards to claims 33-38, and 40-41 for being allowable, since they depend upon an allowable claim 31; is not persuasive since claim 31 has been shown/explained to be rejected.

With regards to claims 50, 52-57, and 61-65 being allowable since they depend upon an allowable claim 26; is not persuasive since claim 26 has been shown/explained to be rejected.

***Conclusion***

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILSON TSUI whose telephone number is (571)272-7596. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Wilson Tsui/
Patent Examiner
Art Unit: 2178
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